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Approved For Release 2003/12/19 : CIA-RDP78B05171A000800080011-2

NPIC/TSSG/DED-1585-69

MEMORANDUM FOR: Director, National Photographic Interpretation Center

SUBJECT : Proposed Contract with the [REDACTED]

25X1

1. This memorandum requests approval for the commitment of funds for a contract. The specific request is stated in Paragraph 7.

2. The proposed project is to improve the performance of the [REDACTED] Trichromatic Microdensitometer (Micro-d). This instrument is operated by APSD/TSSG to determine: the relative quality of film; the film exposure; and the quality of the film processing. It is also used to distinguish very subtle tonal changes within an image to support photo interpretation. There are practical limitations, however, to the types of film which the Micro-d can be used with and to the type of scanning which it can accomplish. High resolution recording materials such as Diazo, very fine grained silver film, free radical materials, etc. and images smaller than a few millimeters cannot be adequately analyzed with the Micro-d without requiring an exorbitant amount of manual processing after the scanning. Modifications are, therefore, proposed to increase the sampling rate and improve the scan control of the Micro-d thereby reducing the present limitations of the machine.

25X1

3. The proposed task will eliminate these problems by first changing the mechanism that governs the sampling interval from a "mechanical" system to a "time" system. The contractor will provide and install a crystal controlled oscillator (the "clock") plus the associated circuitry required to subdivide the 60 Hz line frequency, which will be used to drive the sampling intervalometer to yield a sampling rate capable of 10 samples per micron. To eliminate the other problem mentioned, a digital scan controller is recommended. By adding decade switches, decade counters, and comparison logic, the Contractor proposes to modify the Micro-d so that the X stage movement is controlled by presettable decade switches. The operator will then be able to set any length of scan from 1 micron to 1 decimeter. The necessary designs and fabrications will be performed at the Contractor's facility and within 65 days of the start of the contract, the Contractor will install and check out the modifications at NPIC. No problems are anticipated since these same modifications have been successfully completed on a similar model Micro-d.

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GROUP 1  
Excluded from automatic  
downgrading and  
declassification

Declass Review by  
NIMA/DOD

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25X1 4. Only two Contractors have the necessary familiarity with the [REDACTED]  
25X1 1032T Microdensitometer to perform the desired modifications without  
25X1 requiring further education. These Contractors were both solicited and  
the [REDACTED] proposal was chosen on the basis of cost. The esti-  
mated cost of the task is [REDACTED]. Because of the nature of the work to  
be done, no external coordination was deemed necessary. Internal coor-  
dination between APSD/TSSG and DED/TSSG will continue throughout the  
program.

25X1 5. This task is one of two contracts currently proposed to increase  
25X1 the capabilities of the [REDACTED] 1032T Trichromatic Microdensitometer. The  
other contract will be with the [REDACTED] to improve the scanning stage.  
The two contracts are proposed to run concurrently. The total estimated  
costs of these contracts is [REDACTED]. Neither of the tasks will overlap.

25X1 7. It is requested that the negotiation with the [REDACTED]  
for a contract to conduct the program described at a cost not to exceed  
[REDACTED] be approved.

25X1

[REDACTED]  
Chief, Technical Services & Support Group,  
NPIC

25X1

Attachments: (2)

1. Work Statement & Proposal
2. R&D Catalog Form

APPROVED: \_\_\_\_\_

ARTHUR C. LINDAHL

Director

National Photographic Interpretation Center

\_\_\_\_\_  
Date

Distribution:

Original - NPIC/TSSG/SSD/LB (after approval)

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NPIC/TSSG/DED/R&D-I [REDACTED] (24 Apr 69)

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